

ELECTRICAL CABLE HAVING AN ORGANIZED SIGNAL
PLACEMENT AND ITS PREPARATION

ABSTRACT OF THE DISCLOSURE

5 An electrical cable has a central conductor structure and a plurality of
spiral conductor structures spirally wrapped around the central conductor
structure. Each of the spiral conductor structures includes an electrically
conducting spiral conductor, and a spiral conductor insulation overlying the spiral
conductor. Each spiral conductor structure has no electrically conducting
shielding thereon. Each spiral conductor structure retains a same pair of
10 circumferentially adjacent spiral conductor structures along a length of the
electrical cable. Each spiral conductor structure has a designated identity, and a
circumferential arrangement of each spiral conductor structure is selected
responsive to its designated identity and to the designated identities of each of the
pair of circumferentially adjacent spiral conductor structures. An electrically
15 conducting outer shield overlies the plurality of spiral conductors, and an outer
insulation overlies the electrically conducting outer shield. The electrical cable
is substantially circular viewed in cross section perpendicular to the local
longitudinal axis.